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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,447	09/08/2003	Timothy Crowley	9138-0098US	4731
28529	7590	05/04/2005	EXAMINER	
GALLAGHER & KENNEDY, P. A. 2575 E. CAMELBACK RD. #1100 PHOENIX, AZ 85016			MENON, KRISHNAN S	
			ART UNIT	PAPER NUMBER

1723

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/658,447

Applicant(s)

CROWLEY ET AL.

Examiner

Krishnan S. Menon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-69 is/are pending in the application.  
4a) Of the above claim(s) 1,3-6,13-64 and 69 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 2,7-12 and 65-68 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 1-69 are pending after the amendment of 3/25/05.

#### ***Election/Restrictions***

Applicant's election with traverse of claims 2 and 7-12 in the reply filed on 3/25/05 is acknowledged. The traversal is on the following ground(s), which are not found persuasive:

1. Species election between 7-12 and 13-16: Applicants failed to declare that the species are not patentably distinct and are obvious variants.

Applicant needs to elect a species, or declare that the species are not patentably distinct, but obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. Between groups II and V: the argument that claims 7-10 are sufficiently broad to cover the subject matter of group II as well as group V is not persuasive to over the restriction because the two groups are deemed unrelated as given the restriction requirement. Particularly, while claim 29 recites filter openings and flow channels, which would read on any filter system, whereas claim 7 recites capillary action flow

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paths. Thus claim 7 cannot be generic to claim 29, and has different mode of operation and effect.

3. New claims 65-68 would be examined with claims 2 and 7-12. Claim 69 belongs to the same species as claim 13 and is withdrawn as the non-elected species claim.

4. Re claim 59, claim 59 recites a micro-engineered blood separation device through indents f-h, even if the preamble does not say so, and is correctly grouped.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1, 3-6, 13-64 and 69 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention or species, there being no allowable generic or linking claim.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 8/2/04 was considered by the examiner. However, references US 5,156,576 and US 4,756,776 are crossed out because they teach, respectively, an automobile transaxle and a method of making an explosive, which do not seem to have any relevance to the present application.

### ***Claim Objections***

Claim 67 is objected to because of the following informalities: 'filtrate liquid filtrate' seems to be a typo. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 7-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites an instrument fore the observation, treatment or analysis of a liquid made by the method of claim 1. Claim 1 recites a method of making an implement, not a liquid. Even if claim 1 is considered as providing the antecedent basis for the liquid, it still is open to any liquid. Thus claim 2 is reciting an instrument that can be anything starting from a test tube (for observation). Claims 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 2, 7-9 and 65-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Krepak (US 4,735,722).

Claims 2,7 and 65: Krepak teaches an instrument (Fig 1) for treating a liquid (salt water) comprising an input (at 4), a first passage between valve (4) and filter (2) operative to move liquid by capillary action (from the capillary action forces of the filter and the capillary columns (6)), a filter (2), the first passage leading to an expanded flow path (6).

Claims 8,9,66, 67, and 68: the expanded flow path comprises a plurality of capillaries (6), and leads to an output location (5). Flow by capillary action (col 1 lines 10-15)

2. Claims 2, 7-11 and 65-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilding et al (US 5,587,128).

Wilding teaches an instrument comprising an input (16A - figures 7,12,13),filter (24 or 22B), passages before and after filter (20, 20A, 20B) and parallel capillary flow paths (40) as claimed in claims 2,7-11 and 65-68. Capillary action – see col 7 lines 39-56. Also capillary action is inherent in the microchannels. Claims 10 and 11 recite the added limitations of analysis of the filtrate by optical means including electro-optical – see col 19 lines 16-37.

3. Claims 2, 7,9,10,65,67 and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Brody et al (US 5,922,210).

Brody teaches an instrument comprising an input (1-figures), filter (5), passages from input to filter (4) and filter to output (6) all of which are capillary flow paths

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(inherent), and liquids flow by capillary action (inherent). Claim 10 recites the added limitation of filtrate leading to a testing location with provision for analysis: see abstract and col 1 lines 14-36.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilding'128 as applied to claim 11 above, and further in view of Quake et al (US 2004/0248167).

The teaching Wilding differs from claim 12 in the recitation of the details of the electro-optical means. Quake teaches a laser-optic detection system (figures, abstract, col 7 lines 50-59). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Quake in the teaching of Wilding for a laser-optic detector system because Wilding does not teach the details of the optical detector.

5. Claims 8, 11, 12 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brody'210 as applied to claims 7 or 65 above, and further in view of Quake et al (US 2004/0248167).

Instant claims add the further limitation of plurality of fluid flow paths connected to the first passage to receive flow therefrom by capillary action (claims 8 and 67), and

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electro-optical testing (claim 11). Brody does not teach such plurality of flow paths and testing. Quake teaches plurality of capillary flow paths (32) from a reservoir (48) see - figure 1. which lead to an analyzer (50), and electro-optical means for testing (abstract). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Quake in the teaching of Brody for the analysis of the filtered samples as taught by Brody for analysis such as DNA detection, etc as taught by Quake. One of ordinary skill in the art would also use the teaching of Brody to pre-filter the samples of Quake as taught by Brody for removing unwanted particulates. Re claim 12, Quake teaches the details of the optical system with laser as claimed in fig 9.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Krishnan S. Menon  
Patent Examiner  
4/21/05

  
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